What is claimed is:

1. A switch comprising:

a movable electrode;

a first fixed electrode positioned on both sides of the movable electrode with a predetermined gap; and

a second fixed electrode positioned beneath the movable electrode with a predetermined gap to the movable electrode;

wherein a plurality of convex and concave parts are provided at predetermined positions in a side surface of the movable electrode;

a plurality of concave and convex parts are provided in the first fixed electrode respectively corresponding to the convex and concave parts in the side surface of the movable electrode;

the convex parts formed in the side surface of the movable electrode being arranged in a manner surrounded by the concave parts formed in the first fixed electrode; and

the convex parts of the first fixed electrode being arranged in a manner surrounded by the concave parts in the side surface of the movable electrode.

2. A switch according to claim 1, wherein the convex parts formed in the side surface of the movable electrode are arranged in a manner surrounded by the concave part formed in the first fixed electrode with a predetermined gap having a distance shorter than a length of the convex part.

3. A switch according to claim 1, wherein the convex part of the first fixed electrode are arranged in a manner surrounded by the concave parts in the side surface of the movable electrode with a predetermined gap having a distance shorter than a length of the convex part of the first fixed electrode.

4. A switch according to claim 1, wherein the movable electrode and the first fixed electrode have a same film thickness.

5. A switch according to claim 4, wherein the movable electrode and the first fixed electrode are formed by etching a film formed in a same process.

6. A switch according to claim 4, wherein the movable electrode and the first fixed electrode are formed by a same plating process.

7. A switch according to claim 1, wherein the movable electrode, the convex and concave parts in the side surface of the movable electrode and the concave and convex parts of the first fixed electrode are formed on a same sacrificial layer.

8. A switch according to claim 7, wherein the movable electrode, the convex and concave parts in the side surface of the movable electrode and the concave and convex parts of the first fixed electrode are formed on a sacrificial layer of resist.

9. A switch according to claim 7, wherein the movable electrode, the convex and concave parts in the side surface of the movable electrode and the concave and convex parts of the

first fixed electrode are formed on a sacrificial layer of polyimide.

10. A switch according to claim 1, wherein a step moderating pattern is formed in a predetermined position beneath the first fixed electrode.

11. A switch according to claim 1, wherein a step moderating pattern is formed at a predetermined position in a side surface of the second fixed electrode.

12. A switch according to claim 1, wherein the second fixed electrode has convex and concave part in its side surface corresponding to a plurality of convex and concave parts formed at predetermined positions on a side surface of the movable electrode with respect to a longer-side direction.

13. A switch according to claim 1, wherein the second fixed electrode has a width greater than a distance between the concave parts of the first fixed electrode positioned on both side of the movable electrode.

14. A switch according to claim 1, wherein the second fixed electrode has a width smaller than a distance between the convex parts on both sides of the movable electrode but greater than a distance between the concave parts on both sides of the movable electrode.

15. A switch according to claim 1, wherein the second fixed electrode has a width smaller than a distance between the concave parts on both sides of the movable electrode.

16. A switch according to claim 1, wherein a plurality of holes are provided at predetermined positions on a surface of the movable electrode.

17. A switch according to claim 1, wherein a plurality of holes are provided at predetermined positions on the first fixed electrode.

18. A switch according to claim 1, wherein, in a state the movable electrode is in contact with the second fixed electrode, the plurality of convex and concave parts formed in predetermined positions in a longer-side directional side surface of the movable electrode have a portion vertically overlapped with the concave and convex parts formed in the first fixed electrode.

19. A switch according to claim 1, wherein the plurality of convex parts in a side surface of the movable electrode have an impedance higher than that of the movable electrode at the portion than the plurality of convex parts.

20. A switch according to claim 1, wherein, in a case the movable electrode moves from a state contacted with the second fixed electrode to a position away from the second fixed electrode with a predetermined gap, a period of applying a voltage between the first fixed electrode and the movable electrode is equal to or less than a time required for the movable electrode to move, from a contacted state with the first fixed electrode, a shortest distance of a predetermined gap formed by the convex

part formed on the side surface of the movable electrode and the concave part formed on the first fixed electrode and a predetermined gap formed by the convex part of the first fixed electrode and the concave part on the side surface of the movable electrode.

21. A switch according to claim 1, wherein, in a case the movable electrode moves from a state contacted with the second fixed electrode to a position away from the second fixed electrode with a predetermined gap, a period of applying a voltage between the first fixed electrode and the movable electrode is a time required for the movable electrode to change from a contacted state with the second fixed electrode into a predetermined gap width and contact with the second fixed electrode.

22. A switch according to claim 1, further comprising an amplifier for amplifying a signal, an antenna, a second fixed electrode as a series-connection switch for connecting between the amplifier and the antenna, and a movable electrode as a grounding-connection switch for connection to a ground side, the series-connection switch and the grounding-connection switch being alternately connected and disconnected to thereby carrying out input/output control of a signal.

23. A switch according to claim 1, wherein, in a state the movable electrode is not contacted with the second fixed electrode, an electrostatic force is applied to between the movable electrode and the first fixed electrode when temperature

is changed.

24. A method for manufacturing a switch comprising:

a step of forming a silicon oxide film on a substrate;

a step of forming a metal on the silicon oxide film;

a step of dry-etching the silicon oxide film on the metal;

a step of etching the metal to form an electrode-to-electrode isolating silicon oxide film; and

a step of forming a movable electrode having convex and concave parts on a side surface, and a fixed electrode for driving the movable electrode having concave and convex parts, opposed to said convex and concave parts of the movable electrode, on a side surface on a same sacrificial layer.

25. A method for manufacturing a switch according to claim 24, further comprising a step of forming a resist mask in an area where the movable electrode and fixed electrode are arranged, a step of forming the movable electrode and fixed electrode, and a step of removing the resist mask and the sacrificial layer and forming a capacitance reducing gap.

26. A method for manufacturing a switch according to claim 24, further comprising a step of forming the sacrificial layer of polyimide, and a step of forming an Al film over an entire surface by a sputtering technique.

27. A method for manufacturing a switch at least comprising:

a step of forming a silicon oxide film on a substrate;

a step of forming a metal on the silicon oxide film;

a step of dry-etching the silicon oxide film on the metal;

a step of etching the metal to form an electrode-to-electrode isolating silicon oxide film; and

a step of forming a step moderating pattern in a predetermined position of a side surface of a signal transmitting fixed electrode.

28. A method for manufacturing a switch according to claim 27, further comprising a step of forming a sacrificial layer, a step of forming an Al film over an entire surface by a sputtering technique, and a step of removing, after forming a movable electrode, the sacrificial layer and step moderating pattern to thereby form a capacitance reducing space.

29. A method for manufacturing a switch according to claim 27, further comprising a step of forming a sacrificial layer, a step of forming an Al film over an entire surface by a sputtering technique, a step of forming a mask for forming a movable electrode and a mask for forming a movable electrode driving fixed electrode in an area where a movable electrode and a movable electrode driving fixed electrode are arranged, and a step of removing, after forming a movable electrode and a movable electrode driving fixed electrode, the sacrificial layer and step moderating pattern to thereby form a capacitance reducing space.